

## ABSTRACT OF THE DISCLOSURE

A method and a device for determining the torques on gear shafts. With the help of this method and the device in the case of a constant transmission ratio, the rotational speed of a first gear shaft (2, 19) and the rotational speed of a second gear shaft (3, 22) are measured cyclically. A first torque is present on the first gear shaft and a second torque is present at the second gear shaft. The second gear shaft is driven by the first gear shaft directly or indirectly, via gears (5, 6, 7, 8; 20, 21). A quotient is computed from these two rotational speeds, and stored so the current quotient can be compared with the quotient of the previous measuring cycle. In the case of a difference in the quotients of the current and the previous measurement, a change in the torque of the first gear shaft can be assumed.